



E-SLIP

LIVESTOCK INFORMATION CORNER



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HIGHLIGHT STORIES

- E-SLIP Promotes Forage Production in Schools
- ECF vaccines restores farmers' pride
- LAWRENCE KALIWANDA – livestock farmer on the rise

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EDITORIAL

Dear reader,

We are happy to share another compilation of experiences from beneficiaries under the Enhanced Smallholder Livestock Investment Programme (E-SLIP). The stories you will read show how rural smallholder farmers continue to be eager to learn and adopt recommended technologies that will enhance their production and productivity.

Forage and pasture production is one of the recommended practices that E-SLIP has been promoting; and livestock farmers have continued to take keen interest in taking up the growing of perennial legumes and grasses. In promoting forage and pasture production, E-SLIP has been helping farmers adopt climate change adaption techniques and improve animal nutrition practices.

Learning and knowledge transfer continue to be the catalyst through which E-SLIP interventions are reaching both direct and indirect beneficiaries. This has been evident among some stocking and restocking beneficiaries who have successfully trained fellow beneficiary farmers that they have passed on livestock to. This is a good sign that farmers are assimilating the knowledge imparted through trainings facilitated by E-SLIP and that they are capable of passing on this knowledge correctly to new beneficiaries.

Through E-SLIP's animal disease control interventions, the localization of East Coast Fever (ECF) vaccine production has enhanced the timeliness of immunization exercises in targeted areas. Furthermore, this has also enabled the production of vaccines that have assured efficacy against the different types of ECF strains around the country.

E-SLIP has been facilitating the localization of ECF stabilate production of ECF and is facilitating the control of Contagious Bovine Pleuropneumonia (CBPP) in cattle. The interventions by E-SLIP have contributed towards creating a disease control blueprint for the Ministry of Fisheries and Livestock through which E-SLIP has been implementing its interventions.

We hope you enjoy reading about these interventions and we wish you all fulfilling 2023.

FOREWORD



For the Enhanced Smallholder Livestock Investment Programme (E-SLIP), the year 2022 has encompassed more interactions with beneficiary groups as part of continued process of listening to how our interventions have impacted them. As expected, their stories have been varied and compelling.

Beneficiaries of our Animal Disease Control Unit have continued to voluntarily access our disease control interventions namely East Coast Fever immunization exercises and Contagious Bovine PlueroPneumonia (CBPP) preventative measures.

Through these activities, beneficiaries have become more aware of the need to protect their livestock investments by adhering to animal health practices consistently.

The beneficiaries of the stocking and restocking exercise share testimonies of how the livestock packages they received in previous years is now enhancing their household incomes and; diversifying their household nutrition.


Through the stocking and restocking exercise, beneficiaries continued to be more enlightened on best livestock management practices. Through our Rural Poor Stimulus Facility (RPSF) many of our target farmers were exposed to rabbit rearing which was once done with reservation but has now proved to be a fast-income generating activity that they can undertake with minimal resources.

The lifting of COVID-19 restrictions entailed that farmers could re-engage through hybrid trainings and meetings which consequently enhanced the sharing of knowledge.

Meanwhile, our forage seed and forage production sub-components continued promoting the production, utilization and preservation of forage and pasture grasses to improve the quality and increase the access to good animal nutrition.

The knowledge sharing that occurs most especially as farmers pass-on livestock and their herds slowly begin to grow, has been an eye-opening experience for us at E-SLIP as we gathered lessons learned – some of which we are sharing in this 2023 edition.

We thank our partners in the National Agriculture Information Services (NAIS) who dedicated their time to help us document and compile this publication.



Dr. Gregory. M. Mululuma
Programme Coordinator

Enhanced Smallholder Livestock Investment Programme (E-SLIP)

ABOUT E-SLIP

PROGRAMME FUNDING	US\$ 46.28 million
IFAD loan	US\$ 15.09 million
Co-financiers (INTERNATIONAL)	OFID US\$ 12 million
Co-financiers (domestic)	GRZ US\$ 10.57 million
Local beneficiaries	US\$ 8.62 million
TARGET BENEFICIARIES	180,000 smallholder livestock-keeping households
COVERAGE	National
PROGRAMME GOAL	Sustainably improved incomes of rural poor households in targeted provinces and districts in Zambia

PROGRAMME OBJECTIVE

The production and productivity of key livestock systems of targeted female and male smallholder producers in all provinces of Zambia are sustainably improved

PROGRAMME COMPONENTS

1. Animal Disease Control Sustainably Improved
2. Livestock Production Systems Sustainably Improved
3. Programme Coordination Office

STRATEGIC PARTNERS

- Rural Finance Services Extension Programme (RuFEP)
- Livestock Development and Animal Health Project (LDAHP)
- Livestock Infrastructure Support Project (LISP)
- World Food Programme (WFP)
- Food and Agriculture (FAO)

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E-SLIP PROMOTES FORAGE PRODUCTION IN SCHOOLS

By Eunice Mbewe

Although Zambia is blessed with natural resources, vast land for agriculture production and favorable climatic conditions for both agriculture and livestock production, research reveals there are still reports of food insecurity and high rates of undernutrition especially among children below the age of five.

The major contributors of food insecurity include among others: climate shocks, limited food diversity, pests and disease burdens coupled with post-harvest losses and low intake of nutritious foods.

Almost 60 percent of Zambia's population live in the rural areas and most of them are smallholder farmers thus making agriculture the most important sector for economic growth and employment creation in the country.

In line with this year's World Food Day which was celebrated under the theme - "Leave No One Behind" and in the spirit of leaving no one behind - the Ministry of Fisheries and Livestock working through the Enhanced Smallholder Livestock Investment Programme (E-SLIP) , has continued to make positive strides in the livestock and agriculture sectors.

E-SLIP supports smallholder farmers through livestock production and productivity packages with the aim of improving the incomes of rural poor households in targeted districts. One way this has been conducted through the stocking and restocking exercise and; the promotion of forage and forage seed production.

Under the component of Livestock Production Systems sustainably improved, E-SLIP seeks to improve livestock production and productivity through improved animal health and nutrition by introducing good pasture and legumes for livestock. The Programme has gone a step ahead by incorporating improved human nutrition activities through dietary diversity.

So far forage seed has been planted on 181 demos with 40,000 beneficiaries countrywide.

Munjile Primary School is situated in Mazabuka district, Southern Province. The School, which is one of these 40,000 beneficiaries is involved in livestock production where they are rearing goats and rabbits.

School teacher, Sylvester Bboni, said that before E-SLIP was established, the school never used to plant anything because it was difficult to access seed and children did not know anything about agriculture .

With the intervention of of the Programme, the school was given pasture legumes namely: cowpeas and velvet beans and were also given Rhodes grass. These packages were accompanied by training of the school's teachers on the importance of the forage seed to both animals and humans. The teachers are now passing on the knowledge to their pupils who are now able to manage the gardens and livestock under the supervision of their teachers.

Mr. Bboni explained that the benefit of growing, conserving and processing the pasture seeds was to generate income for the school and; also to transfer knowledge and skills to school children on farming activities.

"The income we generate from selling the seeds, we help the vulnerable children by buying them pencils and books," he explained.

"We engage pupils to do the actual farming activities and by so doing we are transferring knowledge and skills to them which will help them in the future, in case they fail to finish school they can use skills and become independent," he said.

“Dipping or the use of acaricides in itself is not all that effective in the control of ticks. The problem that most of the farmers made was not testing for the strength of the chemicals. The more you dip the lesser the strength of the chemicals become. In the process the chemicals lost its potency and yet the farmers continued dipping without any effect

Mr. Bboni observed that learners have now developed and gained knowledge in farming.

Munjili school has become the pride of the community as they are helping the vulnerable with basic needs.

13-year old Chipso Chibekwa is in grade 7 at Munjili primary school and she is transferring the knowledge she learned at school to her community.

"Rhodes grass is good for cows and goats so when we feed them with the Rhodes grass they will grow fat and if they are not fed with Rhodes grass they will become thin," she explained.

Chipso also said that they have been taught how to plant legumes and grass which is used to make feed for livestock such as hay. Once they harvest the cowpeas they sell the seed while the residuals are used to make animal feed which is used to feed the goats at the school.

She explained that once they harvested the velvet beans, they fry it and take it to the hammer mill for grinding then it is mixed with the maize bran to make chicken feed.

Another learner from the same school, Micheal Muchindu said that agriculture is the way to go because all food products that we consume come from farming.

"I have been inspired to study agriculture science when I finish school because of the knowledge and skills that I have acquired," he said.

"I'm also advising all my friends to join this programme because it is not always that pupils may finish school due to unforeseen circumstances, like for example lack of sponsorship, while others may fail or stop school, but if you have agriculture knowledge you will survive and you will have food to eat," he observed.

If Zambia is to achieve zero hunger by 2030 then there is need to embrace agriculture and livestock production from primary, secondary and tertiary institutions as it is a potential income generating activity for the younger generation.

CONTAGIOUS BOVINE PLEUROPNEUMONIA (CBPP) BRIEF FOR CATTLE FARMERS

Contagious bovine pleuropneumonia (CBPP) caused one of the three great historic cattle plagues of the world along with foot and mouth disease and Rinderpest.

CBPP was first recognized in Germany in 1693. Contagious bovine pleuropneumonia (CBPP) is a disease of cattle caused by *Mycoplasma mycoides* subsp. *Mycoplasma* (*M. mycoides*).

- As the name suggests, it attacks the lungs and the membranes that line the thoracic cavity (the pleura) causing fever and respiratory signs such as laboured or rapid respiration, cough and nasal discharges.
- Because it is highly contagious with a mortality rate of up to 50%, it causes significant economic losses.
- CBPP is a prominent cattle disease in Africa, Zambia inclusive.

TRANSMISSION AND SPREAD

CBPP is invariably introduced into a herd by contact with an infected animal

- in shared night kraals or
- at water drinking points,
- dip tanks,
- markets,
- common grazing and
- close crowding of cattle.

A susceptible animal becomes infected by inhaling droplets disseminated by coughing.

Since some animals can carry the disease without showing signs of illness, controlling the spread is more difficult.

There is no evidence of transmission through fomites (inanimate objects such as clothing, implements or vehicles) as the organism does not persist in the environment.

GEOGRAPHICAL DISTRIBUTION

The disease currently persists in sub-Saharan Africa. In Zambia the disease is present in Western province and parts of Northwestern, Northern and Muchinga provinces.

PUBLIC HEALTH RISK

Humans are not known to be susceptible to CBPP, so there is no public health risk.

CLINICAL SIGNS

CBPP is manifested by:

- loss of appetite,
- fever and
- respiratory signs, such as rapid respiratory rate, cough and nasal discharges and painful, difficult breathing.

An affected animal often stands by itself, its head lowered and extended, its back slightly arched, and its limbs turned out.

- In many cases, the disease progresses rapidly,
- animals lose condition, and
- breathing becomes very laboured, with a grunt at expiration.
- The animals become recumbent (lie down) and
- in severe cases die after 1-3 weeks.

However, clinical signs are not always evident. Subacute or asymptomatic forms can occur as affected animals partially recover after a period of three to four weeks. However, these cattle may be capable of spreading the disease, acting as unapparent carriers.

APPEARANCE OF THE DISEASE IN A HERD

- Typically, when first introduced into a herd CBPP is severe and mortality relatively high.
- A small proportion of cattle may die rapidly without showing any signs other than fever. It may be possible to link the onset of disease to previous contact with other cattle three to six weeks earlier but this is not always the case as the incubation period may appear to be as long as six months.
- Clinical signs may become apparent only several months after the contact.
- Thus, the disease can become established in a herd before it is noticed and tracing back to the origin can be difficult.
- After some time, the disease in the herd

becomes chronic, the clinical signs become less severe and the mortality rate falls.

- However, losses do continue.

POSTMORTEM LESIONS

Abnormalities (lesions) are generally confined to the chest cavity except in young calves where inflammation of the limb joints with increased fluid occur.

In summary, look for:

- yellow fluid in the chest cavity(up to 30 litres)
- lungs covered with yellowish material
- lungs adhering to the chest wall
- lungs which do not collapse and are solid or marbled
- sequestra in the lungs of chronic cases



Marbled appearance of a lung



Straw colored fluid in thoracic cavity



Infect lung of a cow that has CBPP

PREVENTION AND CONTROL

The main problems for control or eradication are the frequent occurrence of subacute or unapparent infections and the persistence of chronic carriers after the clinical phase.

Chronically infected and symptomless animals play an important role in the persistence and spread of the disease.

Ideally, CBPP control is achieved by:

- Eliminating the whole cattle herd population wherever the disease is detected i.e. stamping-out. This measure successfully eliminates the disease.

In Zambia control of the disease is mainly based on:

- Vaccination campaigns. Vaccination is used to reduce the level of infection. Yet, to be effective vaccination must target 100 per cent of cattle. Thus farmers in CBPP vaccinating areas should fully participate in the vaccination exercise.
- Control of animal movements,
- Cattle identification through CBPP zonal branding,
- Community participation in CBPP control through Community Taskforces, removal of infected herds through test and slaughter.
- Treatment of affected animals with antibiotics is not recommended as animals will still be able to spread the disease.

ECF VACCINES RESTORES FARMERS' PRIDE

By Chongo Mwango

The pride of farmers in Southern Province lays in cattle production and whoever does not have, especially a man, is considered as a woman. In most cases, such a man is not allowed to preside over family and community meetings.

In this region, a large herd of cattle has always been a symbol of pride and prestige, yet like the wings of a butterfly, most of the farmers' pride was thwarted by the East Coast Fever (ECF) commonly known as Corridor before the advent of ECF vaccinations.

Given Hiinta of Simweendeengwe village under Simweendengwe Agricultural Camp, Chief Monze, in Monze District, recalled how his seven heifers succumbed to the cold hand of death through ECF.

"It was devastating to watch my heifers killed due to ECF. I was helpless as I could not do anything to help arrest the situation," Mr. Hiinta lamented.

Mr. Hiinta narrated that most of the farmers' cattle died in large numbers because of non-vaccination of cattle against diseases.

"Cattle died a lot before government's programme of ECF vaccinations started. I had 22 cattle at the time, after the seven heifers died, I remained with only 15 big ones, it was so heartbreaking," Mr. Hiinta pointed out.

Mr. Hiinta, like many other farmers in Monze District, watched helplessly as his animals died without being able to offer any solution.

The government in partnership with the International Fund for Agricultural Development (IFAD) and working through the Enhanced Smallholder Livestock Investment Programme (ESLIP), introduced ECF vaccinations.

Monze District Veterinary Officer, Ricy Namakobo, said that the ECF's vaccination programme started with the cattle population of 128,000 but now stood at 204 996.

"ECF effects of vaccination are positive only to farmers that are compliant to the programme and have their small calves of between one

month to 12 months vaccinated. The vaccines provide immunity to the farmers' herds as corridor is number one killer of cattle and small ruminants such as goats and sheep," Dr. Namakobo disclosed.

There is no doubt that there has been a positive increase in cattle population as a result of the disease control measures which the government has been putting in place.

Ministry of Livestock and Fisheries Senior Livestock, Officer Phias Mungaila, explained that the current disease control measures put in place have greatly changed the face of livestock farming in the district especially after discovering that the use of acaricides alone was not effective in the control of ticks.

"If we look back, the Infectious and Treatment Method through the use of dips or acaricides was not effective on its own in the control of ticks. But dipping combined with vaccinations has proven to be effective," Mr. Mungaila explained.

Much as the acaricides could have been effective in the control of ticks, researchers discovered that the mistake that most farmers made was to not test the strength of the chemicals and just dipped their animals in chemicals that were reduced to mere

water. This resulted into the ticks flaring up in population.

“Dipping or the use of acaricides in itself is not all that effective in the control of ticks. The problem that most of the farmers made was not testing for the strength of the chemicals. The more you dip the lesser the strength of the chemicals become. In the process the chemicals lost its potency and yet the farmers continued dipping without positive results”, Mr. Mungaila explained.

This was a common scenario to most farmers not only in Monze District but in Southern Province as a whole as corridor disease remained endemic in the area.

“Once farmers achieve the health care package, it is important for them to sell animals at economical price and not just at a time when they have a crisis”

While this was happening, scientists were no sleeping ducks as they worked day and night trying to find out where they have failed the farmers with their produced acaricides.

Researchers discovered that dipping on its own was not effective in the control of ticks and the corridor disease thus introducing vaccination as well.

“Because the acaricides were not effective on their own, vaccinations were also introduced to be done side by side”, Mr. Mungaila said.

Ticks can transmit at-least five different diseases such as Anaplasmosis, Heart Water, Corridor, Babesiosis and Tick Paralysis or sweating sickness.

Mr. Mungaila emphasized that it was imperative that farmers continue dipping their animals to prevent them from contracting other diseases as the ones mentioned above.

Mr. Mungaila further pointed out that because of the positive response that the farmers have shown towards the vaccination programmes, tick borne disease control has improved tremendously compared to the past records when the disease was controlled only through dipping and spraying.

The district vaccinated up to 5736 calves. The ECF vaccinations programs, are sponsored by IFAD through ESLIP to ensure sustainable animal disease control and sustainable livestock production.

Mr. Mungaila stated that there has been a tremendous reduction of mortality cases in young animals which has reduced.

Most farmers have improved their food security at household level as well as economic wise as they are now able to supply milk to Parmalat. This time around, they no longer using hand hoes in their farming activities because they have animal draft power which also ferry agro inputs from the depots to their farms.

“Farmers have had their livelihoods improved as they are now able to sell milk to the 15 different milk centers that have been open in different places of the Monze District, unlike in the past when there was only one milk center”, Mr. Mungaila disclosed.

Nutrition status of most of the people in the villages has improved as milk consumption per person also improved.

Mr. Mungaila however took a swipe at the farmers who were still treating farming as a way of life saying that livestock production was a business and as such people should take it that way.

He also advised the farmers to provide a health care package of dipping, deworming, vaccinating, feeding, housing and breeding.

Deworming should be done at-least twice a year; at the beginning of the rain season and at the end. Animals should be provided with plenty of nutritious and adequate feed all the time and should be kept in an ideal housing. Above all farmers, must breed only selected productive animals.

“Once farmers achieve the health care package, it is important for them to sell animals at economical price and not just at a time when they have a crisis”, Mr. Mungaila charged.

Though farming is a business, most of the farmers still consider larger herds of cattle as a sign of prestige, no wonder they were devastated when almost all the cattle was claimed by Corridor disease.

Thumbs up to the ECF milestone vaccination programme spearheaded by IFAD through E-SLIP for restoring their pride

E-SLIP PASS-ON PROGRAMME ELATES FARMERS

By LAWRENCE KABUTU

The Enhanced Smallholder Livestock Investment Programme (E-SLIP) targeted key livestock systems of smallholder producers in selected provinces and districts through three main components: animal disease control, livestock production systems and program management.

While national in scope, the program placed a strong focus on districts experiencing a high incidence of endemic livestock diseases, thereby reducing poverty for smallholders.

E-SLIP restocking programme in Gamela Veterinary Camp in Choma, has yielded positive gains through the pass on programme of off-springs of beef, dairy, and goat value chains to other beneficiary farmers.

Choma District Acting Livestock Technician Katutu Makongo said farmers in Gamela Camp received 100 goats, 80 dairy and 20 beef animals which they have started sharing off-springs with other beneficiary farmers.

Mrs. Makongo noted that beneficiary farmers also received pasture seed for their cattle to improve livestock nutrition.

“These dairy animals were in-calf when they came and immediately they gave birth, farmers started milking the cattle consequently increasing the milk volumes at Mutandalike Dairy Cooperative. The milk production increased from 200 litres per day to 350 litres when farmers started milking the dairy and beef animals from E-Slip Project,”

Meanwhile, Gamela Veterinary Assistant Susan Mwalweni said from the 100 improved goat breeds each recipient farmer received five goats.

Mrs. Mwalweni said recipient farmers who received beef animals utilised good management practices such as dipping, deworming and vaccinations to prevent livestock diseases.

Speaking on behalf of farmers, Headman Siampekema expressed happiness to E-SLIP livestock restocking programme that is aimed at improving the rural farmers' livelihoods.

Headman Siampekema thanked E-SLIP for supporting farmers under the livestock restocking programme that benefited vulnerable but viable farmers in livestock sector.

In another development, Mutandalike Dairy Cooperative Secretary, in Choma, Joseph Banda said his cooperative received eight heifers and another eight beef animals totally to 16 cattle from the programme.

Mr. Banda stated that 25 goats were also delivered to the group to venture in alternative goat value chain in a bid to improve the livelihood of the smallholder farmers.

“The pass – on of off-springs to other beneficiary farmers has already been done as the beef animals came with calves. This is the first generation of pass-on from the first beneficiaries to the second beneficiary smallholder farmers of beef animals,” he said.

Mr. Banda noted that the benefits accrued by beneficiary farmers from the animals donated by the E-SLIP project include increased income for farmers from the milk from the dairy animals donated by the project.

He said that Mutandalike Dairy Cooperative has increased the milk production levels from 200 litres per day to 350 litres due to the dairy and beef animals received by farmers from the project.

“These dairy animals were in-calf when they came and immediately they gave birth, farmers started milking the cattle consequently increasing the milk volumes at Mutandalike

Dairy Cooperative. The milk production increased from 200 litres per day to 350 litres when farmers started milking the dairy and beef animals from E-Slip Project," he said.

Mr. Banda explained that most recipient smallholder farmers of livestock from the E-SLIP had no cattle.

He paid tribute to E-SLIP project for the donation of animals to Mundalike Dairy Cooperative as it boosted the volumes of milk at the milk collection centre.

Mr. Banda affirms that goat value chains recipients were workers for other farmers and

“The pass – on of off-springs to other beneficiary farmers has already been done as the beef animals came with calves. This is the first generation of pass-on from the first beneficiaries to the second beneficiary smallholder farmers of beef animals,”

after empowering them with animals they stopped working for other farmers.

“These farmers were given 5 goats per farmer with one beef animal. The same goats have multiplied now from 5 to 10 or 12,” said Mr. Banda.

He clarifies that farmers are able to take their children to school after selling milk. They are also able to buy farm inputs as the season has commenced, and they have entered into a programme of selling seed from agro dealers at a commission.

“Those farmers who have dairy animals are given before they pay for the seed animals because we know that they will bring milk to Mutandalike Dairy Cooperative and debit their accounts accordingly,” he clarifies.

Mr. Banda concluded by saying that the biggest challenge that the farmers face in the area is the absence of dip tanks to manage tick borne and other cattle diseases.

He pointed out that there was only one dip tank the whole of Gamela Veterinary Camp in Choma.

While national in scope, E-SLIP has managed to place a strong focus on districts experiencing a high incidence of endemic livestock diseases, thereby reducing poverty for smallholders.





LAWRENCE KALIWANDA – LIVESTOCK FARMER ON THE RISE

Lawrence Kaliwanda, a Mbala Dairy Farmer gazing at his pasture field.
PICTURE BY GEORGE MTONGA

By George Mtonga

Value addition for enhanced beef and dairy production to generate wealth, create job opportunities and alleviate poverty is at the heart of most livestock farmers in Mbala District of Northern Province.

One such passionate livestock farmer is Lawrence Kaliwanda of Kazimolwa ward in Mbala Central Veterinary camp rearing over 30 cross breed dairy cattle. He milks not less than Two 240 litres of fresh milk on a daily basis.

Lawrence boasts of being a consistent milk

“I have inculcated the passion for cattle rearing in my children and grandchildren who in turn have supported me greatly especially in challenging moments

supplier at the newly opened Mbala Livestock Milk Processing centre, and describes dairy production as a lucrative enterprise.

He has fully realised the benefits of rearing dairy cattle, a journey he embarked on eight years ago, which he says has been challenging and required long term vision, determination and patience.

“I drew my inspiration at a very tender age from my elder brother who was engaged in cattle trading and I developed a strong passion to become a prominent livestock farmer in the country, a dream that I am still pursuing” explained Lawrence.

He recalls the days when he participated in the exposure farming and livestock visits to Southern and Central provinces of Zambia organised by the departments of Agriculture and Livestock which further raised his interest for to venture into commercial trading of cattle.

Years before engaging in dairy production, Lawrence was involved in the buying and selling of beef cattle, a business that boosted his financial capacity to take his children to school both local and overseas for further studies.

Lawrence explained that cattle trading demands a lot of discipline and hard work for one to realise maximum profits, hence most people especially youths shun the business preferring something that would bring them quick money.

He was quick to attribute his success to his wife and children who have rendered him a lot of support throughout his business journey.

“I have inculcated the passion for cattle rearing in my children and grandchildren who in turn have supported me greatly especially in challenging moments,” happily explained, Lawrence.

The purpose driven small scale livestock farmer dreams of owning over five dairy cattle in the next five years to come.

Lawrence noted that cattle rearing comes along with diverse challenges such as Foot and Mouth Disease

Livestock Investment Programme (E-SLIP). The Programme empowered me with four dairy cattle as well as rangeland management skills which have enabled me to thrive in my business," said Lawrence.

Acting Mbala District Fisheries and Livestock Coordinator, Goliath Zulu expressed happiness to see some small scale livestock farmers like Lawrence engaged in dairy and beef production, seed multiplication and pasture growing in the district.



Lawrence Kaliwanda, A Mbala Dairy Farmer in his field.
PICTURE BY GEORGE MTONGA

Dr. Zulu attributed the FMD, East Coast Fever (ECF) and CBPP diseases reduction to government's effort through the construction of modern livestock infrastructure such as livestock centres, dip tanks, tier one and tier two pass facilities to allow farmers engage in the practice of vaccinating and dipping their animals.

He further explained that currently the district has stopped recording cow mortalities from ECF and other related animal diseases creating an acceptable environment for livestock enterprise.

“I would confidently say that we have recorded zero cases of cattle mortality from ECF, FMD and CBPP diseases, a situation that proves great success on the part of government through improved livestock infrastructure,”

(FMD), Contagious Bovine Pleuropneumonia (CBPP) and inadequate grass for livestock grazing during the dry season.

He expressed gratitude to government and its cooperating partners for providing initiative models like rangeland management, seed multiplication, frequent animal dipping and vaccination which has reduced animal disease levels and high mortality.

"I am a direct beneficiary of the Enhanced Smallholder

He expressed joy to see a drastic reduction in animal disease and escalated mortality which were cases of the past.

Lawrence has called upon women and the youth to develop keen interest in livestock production if they are to reduce poverty at household level in the district.

On a lighter note he attributed his youthful looks though advanced in years to peace of mind as successful milk producer.

"I would confidently say that we have recorded zero cases of cattle mortality from ECF, FMD and CBPP diseases, a situation that proves great success on the part of government through improved livestock infrastructure," narrated Dr. Zulu.

Dr. Zulu emphasised and called on other livestock farmers in the district to emulate Lawrence and value the need to rear healthy cattle by mitigating disease control and focus on animal nutrition levels to attain high beef and milk productivity in Mbala.

He highlighted that it is for this purpose that the component of rangeland management has been rolled out to small scale livestock farmers to ensure availability of animal pasture especially during dry season to reduce stress on animals by making them move long distances in search of greener pastures.

“We have selected some households in the district who have been given seed for pasture production and have since created some demonstration plots as a pilot project,” said DrZulu.

He was optimistic that if small scale livestock farmers like Lawrence and others would embrace and adopt the practice of cattle vaccination and pasture production, the district would achieve better results in enhanced livestock production.

E-SLIP provides valuable support to the livestock sector through strengthening Government capacity for animal disease control and reducing the incidence of ECF and CBPP, which are among the main causes of cattle mortality in Zambia. The Programme has also conducted value chain studies and is developing market-oriented extension manuals for improved cattle, goat, sheep and poultry production and marketing.

“I have inculcated the passion for cattle rearing in my children and grandchildren who in turn have supported me greatly especially in challenging moments,”



EAST COAST FEVER

DENKETE CHIGODOLA

What is East Coast fever (ECF)?

East Coast Fever is a disease of cattle that is transmitted by a small brown infected tick (the Brown Ear tick) which mainly feeds in the ears. The tick gets infected while feeding on a sick animal or an animal which is recovered from ECF, or a carrier wild animal. The disease occurs during the rains (January to March) and at the beginning of the dry season (May and June). However, sporadic cases may occur throughout the year.

Some cattle survive the disease and will remain protected against it for the rest of their lives while others will become carriers and therefore remain sources of infection

Exotic animals are very susceptible to the disease.

Signs of ECF

- High temperature
- loss of appetite
- Swelling of lymph nodes (below the ears, front of shoulder)
- Tears from the eyes
- Coughing or diarrhoea
- Loss of weight

How to control Corridor/ECF How is Corridor/ECF controlled?

There are several methods of ECF control the major ones being: -

- Tick control (dipping, spraying or pour-ons)
- Treatment of sick animals
- Immunisation of calves using ITM

Others are:

- Stock movement controls
- Rotational grazing
- Selective breeding

A combination of one or more of these methods can be applied (integrated approach).

However, the major control methods currently in use in Zambia are tick control and the Infection and Treatment Method (immunization).



What is tick control?

Tick control is made possible by use of acaricides applied on cattle by means of dipping, which involves the animals plunging into and swimming through dip tanks containing aqueous emulsion, suspension or solution of acaricide. The other means of acaricide application is by use of spray races, hand sprayers and pour-ons.

What is ECF immunization?

It is an infection and treatment method of protecting cattle and is a cheaper method of preventing ECF in cattle because it is done just once in an animal's life.

How is immunisation done?

It involves simultaneously injecting controlled amounts of ECF parasites and an antibiotic (usually a long acting tetracycline). An appropriate immunisation dose is administered subcutaneously below the ear with a concurrent intramuscular injection of 20% LA tetracycline at 20mg/kg of live weight

How does immunisation work?

It activates the animal's immune system against ECF so that when the animal gets into contact with the disease, it will be able to fight it

How long does the immunisation protect the animal?

The cattle immunised in this way are protected from ECF for life as long as they continue receiving a constant challenge from ticks.

What is the price per calf? Cost of immunisation

The cattle farmers will contribute towards the cost of immunisations which is revised from time to time.

What is ECF stabilate?

There are two types of ECF stabilate strains currently being used in Zambia, Chitongo and Katete.

The Chitongo vaccine is a sporozoite stabilate of *Theileria parva* that was isolated from Chitongo area in Namwala, Southern Province, whereas the Katete vaccine was isolated from Katete in Eastern Province. Chitongo vaccine has been shown to be effective against most strains in Southern Province while Katete is effective against most of the Eastern Province strains.

This (These) products should be kept in liquid nitrogen (-196 °C) till it is needed for

vaccination at which time it they should be used immediately after thawing or within four hours on ice.



E-SLIP PROVIDES MARKET FOR LIVESTOCK FARMERS

By Josiah Mpofu

Kaputa district, located in the Northern Province of Zambia has an estimated population of 130,000 people. The area is surrounded by big lakes such as Mweru, Mweru Wantipa and Tanganyika.

The residents of Kaputa since time immemorial have always engaged in fishing as their main source of income due to abundant water from lakes and rivers surrounding the district.

However, with the depletion of fish in the water bodies due to unsustainable fishing activities and population growth, people have ventured into crop and livestock production as a source of their livelihood.

The major crops which are being cultivated in the district are rice, groundnuts, maize and cassava. Kaputa is a leading producer of rice in Northern Province with the commodity penetrating markets in other provinces such as Lusaka and Copperbelt.

In the 2021-2022 farming season the district cultivated over 2,800 hectares of rice.

Despite the district performing extremely well in crop production, livestock development has been moving at a slow pace due to people's negative perception regarding cattle rearing, despite the area having great potential to be the leading producer of livestock in the country.

To change this narrative and increase livestock production in the district, government through the Enhanced Smallholder Livestock Investment Programme (E-SLIP) in 2018 stocked the district with various livestock species among them cattle, goats and chickens.

The Programme stocked 34 heads of cattle with a view of the beneficiaries increasing them and passing on the offspring to other groups in the district. The cattle have increased from 34 to over 120 and have since been sold to government under the buyback programme initiative being implemented by E-SLIP.

Speaking at the official handover of payout of the buyback initiative to beneficiaries under the Programme in Kaputa, Fisheries and Livestock Minister Makozo Chikote presented a cheque of K590,000.00 to three Cooperatives namely Kawama, Luchili and Mwafwe.

The money was used to purchase 18 improved breeds of beef cattle which have since been taken to Western Province to be used as breeding stock in order to improve the breed of cattle in that province.

The Kaputa Boran cattle have been developed in such a way that they are able to withstand climate change shocks and livestock diseases.

Mr. Chikote said the buyback initiative is aimed at providing market for smallholder farmers in order

to motivate them to increase their production capacity.

He expressed joy that the district is excelling in livestock production which was not the case previously as people in the district only concentrated on fishing business.

"Historically Kaputa is known to be a district which treated cattle as 'umunani' (relish). I am happy that the people of Kaputa are now embracing cattle rearing as a business that has potential to transform their lives," said Mr. Chikote.

He encouraged the people of Kaputa to take advantage of the rich endowments they have in terms of good climate, abundant water resources and green vegetation throughout the year to boost livestock productivity.

Mr. Chikote reaffirmed government's commitment to put in place interventions that will encourage farmers to look at livestock rearing as a lucrative venture.

"Government endeavors to diversify into market-oriented livestock production as a means of income generation and overall poverty reduction. As a ministry, we will ensure that smallholder livestock investment becomes Zambia's main driver of the country's economic diversification programme and a gateway to economic empowerment for the rural majority," noted Mr. Chikote.

He explained that government is determined to create an enabling environment for the livestock sector to thrive countrywide and create jobs and wealth for the rural communities.

"Government remains committed to supporting all viable co-operatives in the country through provision of livestock and linking them to markets so that they sell their livestock at a good price. I am encouraging farmers across the country to change their mindset and take livestock farming as a business," stated Mr. Chikote.

He encouraged the beneficiaries of the money to use it wisely, by buying other cattle and giving to other co-operatives in the district in order to enhance livestock productivity.

"The money you have received is not for you alone Chairpersons of these co-operatives, this is a gift meant to be used collectively to benefit all intended beneficiaries as every household is also in need just as you," said Mr. Chikote

Meanwhile, the Minister through E-SLIP also handed over 12 improved animal sprays to livestock farmers in Kaputa to help control and prevent livestock diseases in the district.

"I am handing over these 12 automated fuel powered cattle sprayers to you livestock farmers in order to control ticks to avoid cattle being infected by tick borne diseases such as East Coast Fever," he said.

Meanwhile, E-SLIP Stocking and Restocking Livestock Specialist Mwape Mwene disclosed that before the district was stocked with cattle it had only seven (7) heads of cattle but now boasts of being able to supply livestock to government.

Mr. Mwene said when the initiative was rolled out in the district many people were not of the idea because they thought rearing cattle was a difficult venture with little profit.

He explained that the reason the initiative was implemented in the district was to make people realize the potential livestock has in improving their household food and nutrition security and income.

Mr. Mwene observed that embracing livestock rearing for the people of Kaputa was the best option because fishing was no longer the lucrative venture it was previously.

He encouraged farmers to rear livestock not for only meat and dairy purposes, but also as breeding stock in order to maximize their profit.

Mr. Mwene noted that the cattle which is sold for beef and dairy could be sold in the range between K10, 000 to K15, 000 but the cattle for breeding could fetch as much as K25, 000.00 and above.

Speaking on behalf of other beneficiaries, Richard Chishimba appreciated government for buying the cattle from them as the gesture will help to improve their income.

Mr. Chishimba explained that previously he never looked at cattle rearing as a venture which would improve his livelihood as he depended only on fishing.

He said the fishing business is no longer lucrative like the way it was previously because the lakes and rivers Kaputa residents depended on have no fish anymore.

Mr. Chisimba said his life and that of his family has become easy now as he is benefiting a lot from cattle rearing stating that he is now able to have income as compared to the past where he had financial challenges.

He added that his vegetable garden and crop field have been performing well since the time he started applying manure from livestock.

The Programme which is being implemented through funding from the International Fund for Agricultural Development (IFAD), OPEC Fund for International Development and the Zambian Government has so far empowered many rural communities in Zambia with various livestock species such as cattle, goats, rabbits, and chickens among others through the stocking and restocking concept.

With such interventions, there is no doubt that Zambia will soon become a hub for livestock production and compete with other countries in the region such as Botswana.



By Natasha Mhango

Where Zambia's livestock sector is concerned, Anna Chibulu Songolo can be described as an eager beaver.

Like an African proverb: A chick that will grow into a cock is spotted on the first day it is hatched, so is Dr. Songolo's journey to be a veterinarian. At a tender age, she loved dogs an indication of what she was going to be.

"I loved my dogs and when I was a kid, one of our neighbors came and stoned my dog almost to death and that is when I said I was going to be a vet because I didn't know what to do to help my dog...made me cry," Dr. Songolo recalled.

Born on 13th January 1963 in Mpika, Muchinga Province, Dr. Songolo's academic journey began in Lusaka where she started her nursery education at Lusaka Infant School; and then proceeded to do her primary school education at Lusaka Girls' school. Upon completing her primary education, she went to Dominican Convent of Lusaka for her secondary school education, she then proceeded to the University of Zambia (UNZA) in 1981 where

she earned a Bachelor's degree in Veterinary Medicine. Shortly after graduating from UNZA in 1988, she was employed into the civil service as an extension service Veterinary Officer in the Ministry of Agriculture and Rural Development which, at the time, oversaw both agriculture and livestock activities.

Years later in 2012, she went on to pursue a Master's degree in Preventative Veterinary Medicine from Sokoine University of Agriculture.

As a civil servant, she rose steadily through the ranks, collecting some notable achievements to her name along the way. In 2000, she was promoted to the position of Provincial Veterinary Officer for Western Province and this was during a time when cattle in the province had been severely affected by an outbreak of Contagious Bovine PleuroPneumonia (CBPP).

This crisis is what propelled Dr. Songolo towards one of her notable achievements.

One of the recommended control measures for contagious diseases like CBPP is to slaughter all cattle that have been infected or exposed to infected animals; and their carcasses disposed of. These were the international guidelines set

by the World Organization of Animal Health (OIE) which Dr. Songolo - as a practicing veterinarian - was bound to follow.

However, knowing that the Ministry did not have sufficient resources to compensate the many farmers who lost their cattle in the slaughter exercise, Dr. Songolo defied the OIE guidelines. She highlighted the fact that after removing the lungs of the cattle carcasses, the meat of the animals was safe for human consumption and could be sold - consequently cattle owners could not be compensated.

Though her decision to defy international guidelines did not sit well with some of her colleagues and other senior government officials; it did however yield the eventual eradication of CBPP in the province. Soon after this, she was appointed to coordinate the eradication of CBPP in Southern Province.

Other countries began to inquire on how Zambia was bringing the deadly cattle disease under control, and Dr. Songolo was invited to various international platforms to explain how her Zambian-based solution proved to be more efficient.

In helping her meet her vision, civil servants in the Ministry of Fisheries and Livestock are expected to work together.

"We need an understanding of where we want to go. I think that there is one of things where we need to talk to each other," she explained.

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“We must eradicate CBPP in Zambia. It is holding back the cattle industry...we have potential to have way more than the number of animals we have... our carrying capacity is high but because of CBPP and its negative effect, we are still at a miserable 4.5 million cattle for a population for over 19 million,”

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Through programmes like the Enhanced Smallholder Livestock Investment Programme (E-SLIP) - a programme being implemented by civil servants in MFL - Dr. Songolo takes time to note the strides being made in the livestock sector.

"The domestication of the ECF [East Coast Fever] vaccine is a plus. The reduction in the prevalence of CBPP in Western and North Western was also a plus," Dr. Songolo observed.

With specific regard to CBPP, she clearly articulates that she wants to eradicate the disease in cattle.

"We must eradicate CBPP in Zambia. It is holding back the cattle industry...we have potential to have way more than the number of animals we have... our carrying capacity is high but because of CBPP and its negative effect, we are still at a miserable 4.5 million cattle for a population for over 19 million," she said.

History records that where CBPP is concerned, Dr. Songolo was a notable agent of change during the efforts to eradicate CBPP in Western Province where she once worked as Provincial Veterinary Officer. At the time of her move, the cattle in the Province had been struck by the deadly CBPP.

Recognizing that the government's capacity to compensate affected farmers was limited coupled with the fact that the meat of infected animals was safe for human consumption (except for the part that are usually condemned), Dr. Songolo opted to defy OIE guidelines as directed that the farmers be allowed to salvage their animals' carcass.

Her bold mood was based on her desire to ensure that Zambian veterinary practices aligned with the local Zambian situation and this attracted the attention of other countries who observed the successful implementation of CBPP eradication efforts. Her strategy in CBPP eradication has been integrated in E-SLIP's CBPP control measures and continues to prove that it is an effective solution.

Outside the office, Dr. Songolo is a family woman, married with four children. In her free time, she said she likes to sew. Not something she was trained to do but rather a self-taught skill.

At the rank of Deputy Director, Dr. Songola had briefly left the civil service before she was appointed as Permanent Secretary for the Ministry of Fisheries and Livestock in November 2021.

